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Computers and People Series

Communicating with Microcomputers

An Introduction to the Technology of Man-Computer Communications

Ian H. Witten

July 1980, xii + 164pp.
Hardback: £8.80 (UK only) / $18.00, 0.12.760750.1
Paperback: £4.95 (UK only) / $10.50, 0.12.760752.8

With the controversial and much heralded microprocessor revolution upon us there is an urgent need to unveil the mystery dividing Man from machine. This book is about communication both within the system and between it and the outside world.

Digital Signal Processing

edited by V. Cappellini and A.G. Constantinides

June 1980, xx + 292pp., £22.80 (UK only) / $52.50, 0.12.159080.1

This book is a carefully edited selection of papers given at a Conference on Digital Signal Processing at Florence University in 1978. The papers are conveniently grouped in five parts: advanced methods and techniques for designing digital filters; improvements in efficient transformations (Fast Fourier Transforms); implementation aspects (using microprocessors); applications, for example radar systems, biomedicine, seismology; and finally the new field of art-processing.

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APL 1109

Languages And Architectures For Image Processing

edited by M.J.B. Duff and S. Levialdi

July/August 1981, c.300pp., £16.40 (UK only) / $39.50, 0.12.223320.4

The book brings together current ideas on the interaction between special computer architecture, developed for the manipulation of pictorial data, and the resulting demands on high-level language design. Problems associated with architecture include the choice of processors, the advantages of SIMD or SIMD/MIMD machines, the quantification of speed-up factors in terms of numbers of processors, clock-cycle and memory independently of data or computational algorithms. Coverage of the language problem includes discussion of the choice of language, the impact of ALGOL and PASCAL on image processing and computer science in general, and other related areas.

The Institute of Mathematics and its Applications Conference Series

Mathematical Methods in Computer Graphics and Design

edited by K.W. Brodlie

1980, xii + 148pp., £10.80 (UK only) / $26.00, 0.12.134880.6

The first paper offers a review of the current methods for curve and function drawing. The second and third deal with contouring from both regularly and irregularly spaced data. The fourth considers the problem of interpolation from data subject to experimental error while the final two papers lean more towards computer-aided design; one detailing recent progress in geometric algorithms and the other describing some of the problems involved in volume modelling.

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